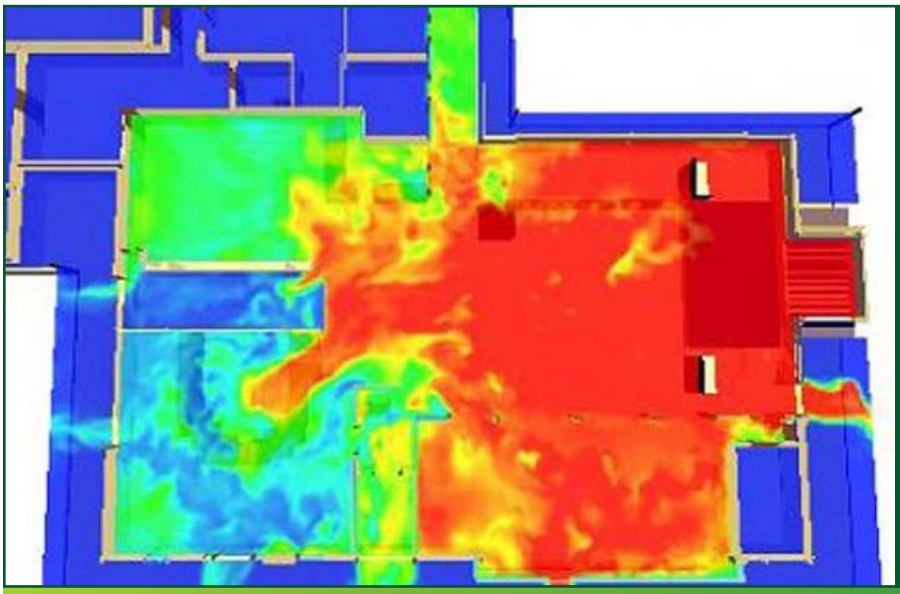
Defense Systems DIGEST

3 DECEMBER 2019 – THE LATEST FROM DEFENSE SYSTEMS INFORMATION ANALYSIS CENTER



NOTABLE TECHNICAL INQUIRY

How is the atmosphere surrounding the objects in WINFIRE described and is it possible to adjust the atmosphere?

DSIAC was tasked with answering multiple questions regarding the WINFIRE model. The WINFIRE Model Manager at the U.S. Air Force Materiel Command (AFMC) was contacted and referred a subject matter expert (SME) for the Fire Prediction Model (FPM), which is embedded in WINFIRE, and the Next Generation Fire Model (NGFM), which is in development. Read More

▶ SUBMIT YOUR TECHNICAL INQUIRY – 4 hours of research service for FREE

FEATURED NEWS

Threat From China Requires Innovative Approach, Says DoD Official

Alan Shaffer, Deputy Under Secretary of Defense, Acquisition and Sustainment, discussed the threat from China and what the U.S. must do to respond to the threat.

He spoke at the Professional Services Council-sponsored Defense Services Conference in Arlington, VA, on 21 November 2019.

"We've been in conflict with China for 10 years and I'm not sure we know it. But we've got to wake up to it," he warned, citing an example.

"How valuable is your intellectual property to you?" Shaffer asked several dozen small and large military contractor executives in the audience.

"Very valuable," they responded. "It better make you mad," Shaffer said. "China doesn't play fair."

Each year, China steals over half a trillion dollars of IP in the U.S. through human and cyber espionage... **Read More**

VOICE FROM THE COMMUNITY

Julie Holmquist, *Marketing Content Writer, Cortec Corporation*

I have been writing about corrosion control for more than 3 years at Cortec Corporation. My work has brought me into a new world of learning how corrosion inhibitors, especially as vapor-phase technology, can be used to provide practical corrosion solutions in the form of packaging, coatings, water treatment, concrete admixtures, etc. I enjoy interacting with a wide range of experts in the field—from R&D chemists, to engineers, to those implementing our solutions in real-life oil and gas, military, construction, and manufacturing applications. In addition to writing product descriptions, company news, and case histories, I am a frequent contributor to industry magazines.

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UPCOMING EVENTS

2020 IEEE/SICE International Symposium on System Integration (SII)
13 January 2020 to 15 January 2020

2020 Air Warfare Symposium
26 February 2020 to 28 February 2020

2020 IEEE Aerospace Conference
7 March 2020 to 14 March 2020

Marine South 2020
2 April 2020 to 3 April 2020

▶ **Want your event listed here? Let us know!**

HIGHLIGHT

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https://www.dodtechipedia.mil/dodwiki/display/DSIAC/DSIAC+-+Defense+Systems+Information+Analysis+Center+Home

DSIAC JOURNAL FALL 2019

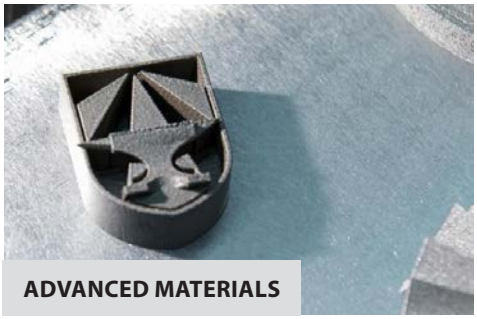
Vehicle Protection: Underpinning Advanced Armor Research and Impact on Survivability

Also in This Issue:

- Zero-Bias Broadband Ultraviolet Photoconductor Based on Ultrananocrystalline Diamond Nanowire Arrays
- Change Detection in Satellite Imagery With Region Proposal Networks
- The Green Monopropellant: Developing and Flight Testing AF-M315E, a Hydrazine Replacement
- Effects of Material Properties on ISR for Synthetic Aperture Radar
- High-Strength, Corrosion-Resistant Steel Over Titanium Alloy for Aircraft Critical Components

▶ **Have an idea for a topic? Please contact us to write an article!**

RECENT NEWS



ADVANCED MATERIALS

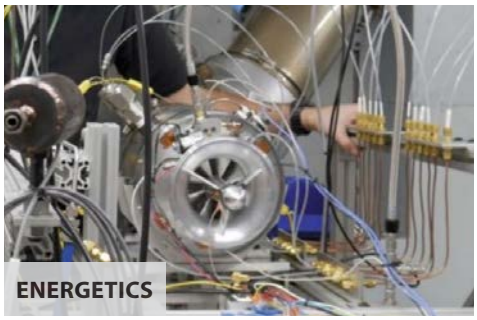
Manufacturing Tungsten Carbide Is Hard. So the Army Research Lab Figured out How to 3-D Print It.

AUTONOMOUS SYSTEMS

Soldiers Soon to See Robotic Mules and Tougher Bomb Bots in the Field

DIRECTED ENERGY

Terahertz Laser to Power "T-ray" Vision and High-Bandwidth Communications



ENERGETICS

U.S. Air Force, for the First Time, Develops In-House Small, Expendable Turbine Engine

MILITARY SENSING

Army Project May Improve Military Communications by Boosting 5G Technology

NON-LETHAL WEAPONS

Stunner: The U.S. Marines Want a Taser That Can Shoot Over 300 Feet

RMQSI

The U.S. Navy Doesn't Have Enough Spare Parts to Keep Its Fighter Jets in the Air

SURVIVABILITY AND VULNERABILITY

Tubulane-Inspired Ultrahard Polymers Are Full of Holes, but Stop Bullets Better Than Solid Materials

WEAPON SYSTEMS

The Air Force's BLU-12 Bomb Is Like a Sniper in the Sky

DSIAC Journal: Call for Spring 2020 Articles

DSIAC publishes research and development (R&D) and engineering articles in a quarterly journal that is distributed to more than 35,000 members. The articles explore new ideas and emerging trends in science and engineering in nine focus areas: Advanced Materials; Autonomous Systems; Directed Energy; Energetics; Military Sensing; Non-Lethal Weapons; Reliability, Maintainability, Quality, Supportability, and Interoperability (RMQSI); Survivability & Vulnerability; and Weapon Systems. The goal of the DSIAC Journal is to help researchers, engineers, and technical managers by providing a forum in which to share their expertise and lessons learned throughout the community and minimize redundant research. We publish original and high-quality papers, with the objective of covering the latest developments in engineering and/or technologies.

Spring 2020 Publication Dates:

Abstract deadline: 2 December 2019

Article deadline: 17 January 2020

For more information, contact the editor-in-chief at ***brian.benesch@dsiac.org***

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